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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,044	12/26/2001	Hugh Barrass	062891.0633	8602
5073	7590	09/20/2005	EXAMINER	
BAKER BOTTS L.L.P.			BLOUNT, STEVEN	
2001 ROSS AVENUE				
SUITE 600			ART UNIT	
DALLAS, TX 75201-2980			PAPER NUMBER	
			2661	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/033,044

Applicant(s)

BARRASS ET AL.

Examiner

Steven Blount

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/27/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

1. Claims 1 - 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,887,032 to Cioffi in view of U.S. patent 6,807,236 to Fujimura.

With regard to claim 1, Cioffi discusses the problems associated with a DSL (VDSL) system when twisted pair lines induce electromagnetic interference on each other. See col 2 lines 63+. Cioffi teaches the solution to this problem to comprise using an adaptive filter for producing a crosstalk cancellation signal based on coupling coefficients. Cioffi does not, however, teach the solution to comprise detecting crosstalk on a first line said crosstalk generated by a communication occurring on a second line; determining a phase of the crosstalk on the first line, and then communicating a first signal on the first line in response to the phase.

Fujimura teaches eliminating crosstalk by using a phase comparator to determine the phase difference between the signals (crosstalk), and wherein a "trigger signal" (col 2 lines 5, 25; col 3 lines 65+ to col 4 lines 15+; col 5 lines 55+; col 5 lines 13+) is sent on the first line.

It would have obvious to one of ordinary skill in the art at the time of the invention to have solved the problem of crosstalk presented in Cioffi by using a phase comparator and trigger signal sent on the first line, in light of the teachings of Fujimura, in order to provide an efficient means for eliminating this problem which uses a minimum amount of hardware.

With regard to claim 2, the use of an arbitrary phase would be obvious in view of the fact that random selection among equally qualified candidates/paths in situations such as this are well known in the art.

With regard to claim 3, see the trigger signal, which is “associated” with the second signal.

With regard to claim 4, see the pulse width described in col 3 line 55.

With regard to claim 5, see the control pulse discussed above.

With regard to claims 6 – 9 and 12, monitoring additional lines is taught in Cioffi. See col 14 lines 30+.

With regard to claim 10, see col 2 line 63 of Cioffi.

With regard to claim 11, the examiner takes Official Notice that DSL operates over time division multiplexing channels.

With regard to claim 13, see column 4 lines 4+, col 5 lines 60+ where the “match” (ie, shifting) is discussed.

With regard to claims 14 – 19, see the rejections above.

With regard to claim 20, see the rejection of claim 1 above, and further note that the phase comparator discussed in col 2 lines 2+ qualifies as the control unit as claimed.

With regard to claims 21 – 29, see the rejections above.

With regard to claims 30 – 35, see the rejections above and note that it would have been obvious to one of ordinary skill in the art at the time of the invention to have implemented the method of carrying out the invention in software in order to ensure its repeatability.

With regard to claim 36, see the rejection of claim 1 and note that the means recited are discussed in Fujimura.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 - 272 - 3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB  
9/18/05

  
Ajit Patel  
Primary Examiner